GEOPHYSICS

A Journal of General and Applied Geophysics

VOLUME CONTENTS

Volume XXI Nos. 1-4

1956

Published by the
SOCIETY OF EXPLORATION GEOPHYSICISTS

VOLUME XXI JANUARY NUMBER 1

PRESIDENTIAL ADDRESS

PAUL L. LYONS: Crossroads of Geophysics 1

FRANCIS COLLINS and C. C. LEE: Seismic Wave Attenuation Characteristics from Pulse Experiments 16

M. R. J. WYLLIE, A. R. GREGORY and L. W. GARDNER: Elastic Wave Velocities in Heterogeneous and Porous Media 41

T. W. SPENCER: Reflection of an Acoustical Pressure Pulse from a Liquid-Solid Plane Boundary 71

KENNETH L. COOK: Regional Gravity Survey of Northeastern Oklahoma and Southeastern Kansas 88

WILLIAM FULLER BROWN, JR.: Minimum Variance in Gravity Analysis, Part II: Two-Dimensional 107

MILTON B. DOBRIN and ROBERT G. VAN NOSTRAND: Review of Current Developments in Exploration Geophysics 142

V. U. GAITHER: Index of Wells Shot for Velocity—Fourth Supplement 156

SIGMUND HAMMER: Geophysical Activity 1955, Interim Report to Midyear 179

DEPARTMENTS

Patents 192

Reviews 200

Publications Received 208

Discussions and Communications

Letter to Editor 209

Errata 209

Memorial

P. F. CLEMENT: LeValley Irving Brockway 210

Contributors 212

Society Round Table

Committees 215

Local Sections 218

Meetings 223

Membership Applications Received 224

Annual Report 226

Announcements 257

Calendar of Meetings 260

VOLUME XXI APRIL NUMBER 2

J. P. WOODS: Composition of Reflections 261
D. S. HUGHES and C. MAURETTE: Elastic Wave Velocities in Granites 277
F. PRESS and M. B. DOBRIN: Seismic Studies Over Surface Layer 285
W. J. TOULIS: Theory of Resonance Chamber 299
G. SHUMWAY: Resonance Chamber Sound Velocity Measurements 305
G. P. SARAFFIAN: Marine Seismic Model 320
M. K. SMITH: Noise Analysis and Multiple Seismometer Theory 337
K. DYK: Additive and Multiplicative Compounding 361
H. P. LAUBSCHER: Deformations Along Faults in E. Venezuela 368
L. C. PAKISER and R. E. WARRICK: Shallow Reflection Seismograph 388
E. T. MILLER and M. EWING: Magnetic Measurements in Gulf of Mexico 406
S. YÜNGÜL: Prospecting for Chromite in Turkey 433
E. W. CARPENTER and G. M. HABBERJAM: Method of Resistivity Prospecting 455
A. R. CLARK: Delineation of Conducting Ore Bodies 470
J. R. WAIT: Loops Over Homogeneous Ground II 479

DEPARTMENTS

Patents 485
Reviews 495
Publications Received 499
Discussions and Communications
Letter to Editor 500
Memorials
R. W. MOSSMAN: Frank Morris Cowell 501
R. R. HEINRICH: Florence Robertson 503
Contributors 505
Society Round Table
Committees 511
Local Sections 514
Meetings 519
Membership Applications Received 549
Candidates for 1956–57 Executive Committee 550
Announcements 554
Personal Items 555
Calendar of Meetings 560
SEG MEMBERSHIP LIST 561

H. WEXLER: Antarctic Research—International Geophysical Year..... 681
N. R. PATERSON: Seismic Wave Propagation in Porous Grandular Media 691
J. E. WHITE, S. N. HEAPS and P. L. LAWRENCE: Seismic Waves from Horizontal Force..... 715
F. P. KOKESH: Long Interval Method of Measuring Seismic Velocity.... 724
W. G. HICKS and J. E. BERRY: Fluid Saturation of Rocks from Velocity Logs..... 739
L. G. ELLIS and A. C. WINTERHALTER: Unusual Events in Offshore Seismics..... 755
R. L. BURLING: Unusual Reflections of Sound in the Ocean..... 765
S. TH. BORNEMISZA and W. F. STACKLER: Observing Vertical Gravity Gradient..... 771
J. C. DEGERY and G. KUNETZ: Potential and Resistivity over Dipping Beds..... 780
I. ZIETZ and R. G. HENDERSON: Model Studies of Magnetic Anomalies.. 794
R. VAJK and G. WALTON: Geophysical History of Parentis Oil Field.... 815
G. J. BLUNDUN: Refraction Seismograph in Alberta Foothills..... 828
D. R. MABEY: Geophysical Studies in Southern California Basins..... 839

DEPARTMENTS

Patents..... 854
Reviews..... 864
Publications Received..... 871
Memorials
L. E. WHITEHEAD: Lawrence F. Athy..... 872
W. R. RANSONE: Francis Luther Bishop..... 874
E. A. ECKHARDT: Ludger Mintrop..... 876
G. H. WESTBY: William Emerson Pugh..... 878
Contributors..... 880
Society Round Table
Committees..... 891
Local Sections..... 892
Membership Applications Received..... 897
26th Annual Meeting..... 899
Amendments to Constitution and ByLaws..... 899
Announcements..... 900
Personal Items..... 902
Calendar of Meetings..... 904

R. N. JOLLY: Investigation of Shear Waves 905
F. F. EVISON: Seismic Wave Transducer at Surface of Stratified Ground 939
W. BAILLIE and T. ROZSA: Topographic Effect on Near-Surface Velocities 960
J. JAKOSKY and J. JAKOSKY, JR.: Explosives for Marine Seismic Exploration 969
B. GRUNEBAUM: Time Increment, Dip of Bed, and Integration Coverage 992
R. VAJK: Bouguer Corrections with Varying Surface Density 1004
D. W. SMELLIE: Elementary Approximations in Aeromagnetic Interpretation 1021
I. ROMAN: Graphical Scales for Mapping Potential Functions 1041
V. L. JONES: Extrapolation and Interpolation Formulae 1047
J. C. COOK: An Electrical Crevasse Detector 1055
PERKINS, OSOBA and RIBE: Resistivity and Geometry of Interstitial Water 1071
M. R. J. WYLLIE and A. J. DEWITTE: Comments on Previous Paper 1084
E. HERRIN and S. P. CLARK, JR.: Heat Flow in W. Texas and E. New Mexico 1087
V. B. RAO: Magnetic Properties of Magnetite 1100

DEPARTMENTS

Patents 1111
Reviews 1119
Publications Received 1124
Contributors 1125
Society Round Table
Committees 1130
Local Sections 1131
Membership Applications Received 1134
Resolutions on Joint Meetings of AAPG and SEG 1138
Announcements 1140
Personal Items 1141
Amendments Proposed to Constitution and ByLaws 1144
Constitution and ByLaws 1149
Calendar of Meetings 1160
Index to Volume XXI 1161

INDEX TO GEOPHYSICS, VOLUME XXI

	No.	Page
"Acoustic and Other Physical Properties of Shallow-Water Sediments off San Diego," by E. L. Hamilton, George Shumway, H. W. Menard, and C. J. Shipek, Jnl. of the Acoust. Soc. of Amer., v. 28, p. 1–15, January, 1956. Review by Franklyn K. Levin	4	1119
Annual Report	1	226
Annual Student Essay Contest	3	900
Antarctic Research in Connection with the International Geophysical Year. Harry Wexler	3	681
Application of Continuous Velocity Logs to Determination of Fluid Saturation of Reservoir Rocks. Warren G. Hicks and James E. Berry	3	739
Baillie, W., see T. Rosza	4	960
Baskara Rao, V. Magnetic Properties of Magnetite	4	1100
Berry, James E., see Warren G. Hicks	3	739
Blundun, G. J., Refraction Seismograph in the Alberta Foothills	3	828
Bouguer Corrections with Varying Surface Density. Raoul Vajk	4	1104
Brancher, A. V. "The Problem of Rheology," Petroleum, v. 18, p. 373–380, October, 1955. Review by Nelson C. Steenland	1	205
Brown, William Fuller, Jr. Minimum Variance in Gravity Analysis, Part II, Two-Dimensional	1	107
Burling, Richard L. Some Unusual Reflections of Sound in the Ocean	3	765
Calendar of Meetings	1	260
	2	560
	3	904
	4	1160
Candidates for 1956–57 Executive Committee	2	550
Carpenter, E. W. and G. M. Habberjam. Tri-Potential Method of Resistivity Prospecting, A	2	455
Characteristics of Explosives for Marine Seismic Exploration. J. J. Jakosky and John J. Jakosky, Jr.	4	969
Christie, D. G. "Reflection of Elastic Waves From a Free Boundary," Phil. Mag., v. 46, p. 527–541, May, 1955. Review by Milton B. Dobrin	1	206
Civil Service Examinations Announced	3	902
Clark, A. R. Determination of the Long Dimension of Conducting Ore Bodies, The	2	470
Reply to the Discussion by Dr. Kunz	2	478
Clark, Sydney P., Jr., see Eugene Herrin	4	1087
Collins, Francis and C. C. Lee. Seismic Wave Attenuation Characteristics from Pulse Experiments	1	16
Committees	1	215
	2	511
	3	891
	4	1130
Comparision of Additive and Multiplicative Compounding. Karl Dyk	2	361
Composition of Reflections, The. J. P. Woods	2	261
Constitution and Bylaws	4	1149
Amendments	3	899
	4	1144
Contributors	1	212
	2	505
	3	880
	4	1125
Cook, John C. Electrical Crevasse Detector, An	4	1055
Cook, Kenneth L. Regional Gravity Survey of Northeastern Oklahoma and Southeastern Kansas	1	88

Heat Flow in West Texas and Eastern New Mexico. Eugene Herrin and Sydney P. Clark, Jr. . . . 4 1087
Henderson, Roland G., see Isidore Zietz . . . 3 794
Herrin, Eugene and Sydney P. Clark, Jr. Heat Flow in West Texas and Eastern New Mexico . . . 4 1087
Hicks, Warren G. and James E. Berry. Application of Continuous Velocity Logs to Determination of Fluid Saturation of Reservoir Rocks . . . 3 739
"History of Concepts of Gulf Coast Salt Dome Formation," by L. L. Nettleton, Bull. Amer. Assoc. of Petr. Geol., v. 39, p. 2373–2383, December, 1955. Review by W. T. Born . . . 4 1121
Hughes, D. S. and Christian Maurette. Variation of Elastic Wave Velocities in Granites with Pressure and Temperature . . . 2 277
Index of Wells Shot for Velocity—Fourth Supplement. V. U. Gaither . . . 1 156
Inglis, D. R. "Theories of the Earth's Magnetism," Review of Modern Physics, v. 27, p. 212–248, April, 1955. Review by L. L. Nettleton . . . 1 203
International Geophysical Year (announcement) . . . 1 257
Investigation of Shear Waves. R. N. Jolly . . . 4 905

Jakosky, J. J. and John J. Jakosky, Jr. Characteristics of Explosives for Marine Seismic Exploration . . . 4 969
Jolly, R. N. Investigation of Shear Waves . . . 4 905
Jones, V. L. Extrapolation and Interpolation Formulae Adaptable to Desk and Other Types of Digital Computors . . . 4 1047

Kober, Leopold. "Structure and Origin of the Alps," Second Edition, Franz Deuticke, Vienna. Review by Richard A. Geyer . . . 1 202
Kokesh, F. P. Long Interval Method of Measuring Seismic Velocity, The . . . 3 724
Kornhauser, E. T., see J. M. Proud et. al. . . . 4 000
Kunetz, Geza, see Jerome Chastenet de Gery . . . 3 780
Kunz, Bruno. Discussion of paper by A. R. Clark . . . 2 477

Laubscher, Hans P. Structural and Seismic Deformations Along Normal Faults in the Eastern Venezuelan Basin . . . 2 368
Lawrence, P. L., see J. E. White et al. . . . 3 715
Lee, C. C., see Francis Collins . . . 1 16
Local Sections . . . 1 218
2 514
3 892
4 1131
Long Interval Method of Measuring Seismic Velocity, The. F. P. Kokesh . . . 3 724
"Low Sound Velocities in High-Porosity Sediments," by Edwin L. Hamilton, Jnl. Acoust. Soc. of Amer., v. 28, p. 16–19, January, 1956. Review by Franklyn K. Levin . . . 4 1119
Lyons, Paul L. Crossroads of Geophysics . . . 1 1

Mabey, Don R. Geophysical Studies in the Intermontane Basins in Southern California 3 839
Magnetic Properties of Magnetite. V. Baskara Rao . . . 4 1100
Maurette, Christian, see D. S. Hughes . . . 2 277
Marine Seismic Model, A. George P. Sarrafian . . . 2 320
Mayhew Scholarship in Geophysics, The . . . 3 901
Memorial—Lawrence F. Athy . . . 3 872
Francis Luther Bishop . . . 3 874
LeValley Irving Brockway . . . 1 210
Frank Morris Cowell . . . 2 501
Ludger Mintrop . . . 3 876
William Emerson Pugh . . . 3 878
Florence Robertson . . . 2 503

Crossroads of Geophysics. Paul L. Lyons 1 1

Denver Section Receives Slide Projector 3 901
Determination of the Long Dimension of Conducting Ore Bodies, The. A. R. Clark . . 2 470
Discussion by Bruno Kunz 2 477
Reply to the Discussion by Dr. Kunz, by A. R. Clark 2 478
Discussions and Communications 1 209
2 500
Dobrin, Milton B., and Robert G. Van Nostrand. Review of Current Developments in Exploration Geophysics 1 142
also see Frank Press 2 285
Dyk, Karl Comparison of Additive and Multiplicative Compounding 2 361

Edmunds, F H. "Geology and Ourselves," Philosophical Library, New York, 1956. Review by W. T. Born 4 1120
Effect of Topography on Near-Surface Velocities. W. Baillie and T. Rosza 4 960
Elastic Wave Velocities in Heterogeneous and Porous Media. M. R. J. Wyllie, A. R. Gregory, and L. W. Gardner 1 41
Electrical Crevasse Detector, An. John C. Cook 4 1055
"The Electrical Effects of Tidal Streams in Cook Strait, New Zealand," by B. H. Ollson, Deep-Sea Research, v. 2, p. 204–212, April, 1955. Review by Milton B. Dobrin . . 1 204
Elementary Approximations in Aeromagnetic Interpretation. D. W. Smellie 4 1021
Eleventh Annual Gulf Coast Meeting (announcement) 1 223
Ellis, L. G., and A. C. Winterhalter. Unusual Reflection Events in Offshore Seismic Work 3 755
Evison, F. F. Seismic Waves from a Transducer at the Surface of Stratified Ground . 4 939
Ewing, Maurice, see Edward Titus Miller 2 406
Extrapolation and Interpolation Formulae Adaptable to Desk and Other Types of Digital Computors. V. L. Jones 4 1047

Gaither, V. U. Index of Wells Shot for Velocity—Fourth Supplement 1 156
Gardner, L. W., see M. R. J. Wyllie et al. 1 41
"Geology and Ourselves," by F. H. Edmunds, Philosophical Library, New York, 1956. Review by W. T. Born 4 1120
Geomagnetic Measurements in the Gulf of Mexico and in the Vicinity of Caryn Peak. Edward Titus Miller and Maurice Ewing 2 406
Geophysical Activity 1955, Interim Report to Midyear. Sigmund Hammer 1 179
Geophysical History of Parentis Oil Field, France. Raoul Vajk and George Walton . . 3 815
Geophysical Studies in the Intermontane Basins in Southern California. Don R. Mabey 3 839
"Geophysics as a Career," anonymous, Shell Petroleum Company, Ltd., London, 1956. Review by W. T. Born 4 1121
de Gery, Jerome Chastenet and Geza Kunetz. Potential and Apparent Resistivity Over Dipping Beds 3 780
"Glancing Angle Reflection of Elastic Waves from a Free Boundary," by E. C. Roesler, Phil. Mag., v. 4, p. 517–526, May, 1955. Review by Milton B. Dobrin 1 206
"Glossary of Selected Geological Terms," by W. L. Stokes and D. J. Varnes, Colorado Scientific Society, Denver, 1955. Review by W. T. Born 1 203
Graphical Scales for Mapping Potential Functions. Irwin Roman 4 1041
Gregory, A. R., see M. R. J. Wyllie et al. 1 41
Grunebaum, Bernard. Relation Between Reflection Time Increment, Inclination of Reflecting Layer and Integration Coverage 4 992

Habberjam, G. M., see E. W. Carpenter 2 455
Hamilton, Edwin L. "Low Sound Velocities in High-Porosity Sediments," Jnl. of Acoust. Soc. of Amer., v. 28, p. 16–19, January, 1956. Review by Franklyn K. Levin . . 4 1119
Hammer, Sigmund. Geophysical Activity 1955, Interim Report to Midyear 1 179
Heaps, S. N., see J. E. White et al. 3 715

Press, Frank and Milton B. Dobrin. Seismic Wave Studies Over a High-Speed Surface Layer 2 285
"The Problem of Rheology," by A. V. Brancher, Petroleum, v. 18, p. 373–380, October, 1955. Review by Nelson C. Steenland 1 205
"Propagation of Sound Pulses in a Dispersive Medium," by J. M. Proud, P. Tamarkin, and E. T. Kornhauser, Jnl. of the Acoust. Soc. of Amer., v. 8, p. 80–85, January, 1956. Review by Franklyn K. Levin 4 1123
Prospecting for Chromite with Gravimeter and Magnetometer of Rugged Topography in East Turkey. Sulhi Yungul 2 433
Publications Received 1 208
2 495
3 864
4 1124

"Reflection of Elastic Waves From a Free Boundary," by D. G. Christie, Phil. Mag., v. 46, p. 527–541, May, 1955. Review by Milton B. Dobrin 1 206
Reflection of an Acoustical Pressure Pulse From a Liquid-Solid Plane Boundary. T. W. Spencer 1 71
Refraction Seismograph in the Alberta Foothills, The. G. J. Blundun 3 828
Regional Gravity Survey of Northeastern Oklahoma and Southeastern Kansas. Kenneth L. Cook 1 88
Relation Between Reflection Time Increment, Inclination of Reflecting Layer and Integration Coverage. Bernard Grunebaum. 4 992
Resistivity of Sandstones as Related to the Geometry of Their Interstitial Water. F. M. Perkins, Jr., K. H. Ribe, and J. S. Osoba 4 1071
Resonant Chamber Method for Sound Velocity and Attenuation Measurements in Sediments, A. George Shumway 2 305
Review of Current Developments in Exploration Geophysics. Milton B. Dobrin and Robert G. Van Nostrand 1 142
Ribe, K. H., see F. M. Perkins, Jr. et al. 4 1071
Roesler, E. C. "Glancing Angle Reflection of Elastic Waves from a Free Boundary," Phil. Mag., v. 4, p. 517–526, May, 1955. Review by Milton B. Dobrin 1 206
Roman, Irwin. Graphical Scales for Mapping Potential Functions 4 1041
Rosza, T. and W. Baillie. Effect of Topography on Near Surface Velocities 4 960

Sarrafian, George P. A Marine Seismic Model 2 320
Seismic Wave Attenuation Characteristics From Pulse Experiments. Francis Collins and C. C. Lee 1 16
Seismic Wave Propagation in Porous Granular Media. Norman R. Paterson 3 691
Seismic Wave Studies Over a High-Speed Surface Layer. Frank Press and Milton B. Dobrin 2 285
Seismic Waves From a Horizontal Force. J. E. White, S. N. Heaps, and P. L. Lawrence 3 715
Seismic Waves From a Transducer at the Surface of Stratified Ground. F. F. Evison 4 939
Shumway, George. Resonant Chamber Method for Sound Velocity and Attenuation Measurements in Sediments 2 305
Shumway, George, see E. L. Hamilton et al. 4 1119
Sima, Hiromu, see Ziro, Suzuki 1 205
Smellie, D. W. Elementary Approximations in Aeromagnetic Interpretation 4 1021
Smith, Mark K. Noise Analysis and Multiple Seismometer Theory 2 337
SEG Business Office Moved to AAPG Building 3 902
SEG Membership List 2 561
Some Unusual Reflections of Sound in the Ocean. Richard L. Burling 3 765
Spencer, T. W. Reflection of an Acoustical Pressure Pulse from a Liquid-Solid Plane Boundary 1 71

Membership Applications Received 1 224
2 549
3 897
4 1134
Menard, H. W., see E. L. Hamilton et al. 4 1119
Miller, Edward Titus and Maurice Ewing. Geomagnetic Measurements in the Gulf of Mexico and in the Vicinity of Caryn Peak 2 406
Minimum Variance in Gravity Analysis, Part II: Two-Dimensional William Fuller Brown, Jr. 1 107
"Model Studies of Salt Dome Tectonics," by Travis J. Parker and A. N. McDowell, Bull. Amer. Assoc. Petr. Geol., v. 39, p. 2373–2383, December, 1955. Review by W. T. Born 4 1121
Mutual Electromagnetic Coupling of Loops Over a Homogeneous Ground—An Additional Note. James R. Wait 2 479

Nettleton, L. L. "History of Concepts of Gulf Coast Salt Dome Formation," Bull. Amer. Assoc. Petr. Geol., v. 39, p. 2373–2383, December, 1955. Review by W. T. Born . . 4 1121
Ninth Annual Midwestern Meeting, announcement 1 223
Abstracts of Papers 2 543
Noise Analysis and Multiple Seismometer Theory. Mark K. Smith 2 337
"Note on the Propagation of Normal Modes in Inhomogeneous Media," by Ivan Tolstoy, Jnl. of the Acoust. Soc. of Amer., v. 27, p. 274–277, 1955. Review by Franklyn K. Levin 1 207

Observation of the Vertical Gradient of Gravity in the Field. Stephen Thyssen-Bornemisza and W. F. Stackler. 3 771
Officers of the Permian Basin Geophysical Society 2 555
Ollson, B. H. "The Electrical Effects of Tidal Streams in Cook Strait, New Zealand," Deep-Sea Research, v. 2, p. 204–212, April, 1955. Review by Milton B. Dobrin . . 1 204
"On Forms of Seismic Waves Generated by Explosions, I," by Ziro Suzuki and Hiromu Sima, The Science Reports of the Tohoku University, *Geophysics*, v. 5, p. 85–94, 1954. Review by Franklyn K. Levin 1 205
Osoba, J. S., see F. M. Perkins, Jr. et al. 4 1071

Parker, Travis J. and A. N. McDowell. "Model Studies of Salt Dome Tectonics," Bull. Amer. Assoc. Petr. Geol., v. 39, p. 2373–2383, December, 1955. Review by W. T. Born. 4 1121
Patents 1 192
2 485
3 854
4 1111
Pakiser, L. C. and R. E. Warrick. Preliminary Evaluation of the Shallow Reflection Seismograph 2 388
Paterson, Norman R. Seismic Wave Propagation in Porous Granular Media 3 691
Perkins, F. M., Jr., K. H. Ribe, and J. S. Osoba. Resistivity of Sandstones as Related to the Geometry of Their Interstitial Water 4 1071
Personal Items 2 555
3 902
4 1141
"The Planet Earth," Scientific American, v. 193, no. 3, 1955. Review by L. L. Nettleton 1 200
Potential and Apparent Resistivity Over Dipping Beds. Jerome Chastenet de Gery and Geza Kunetz 3 780
Preliminary Evaluation of the Shallow Reflection Seismograph. L. C. Pakiser and R. E. Warrick 2 388
Preliminary Report on Model Studies of Magnetic Anomalies of Three-Dimensional Bodies, A. Isidore Zietz and Roland G. Henderson 3 794

Stackler, W. F., see Stephen Thyssen-Bornemisza 3 771
Stokes, W. L. and D. J. Varnes. "Glossary of Selected Geological Terms," Colorado Scientific Society, Denver, 1955. Review by W. T. Born 1 203
Structural and Seismic Deformations Along Normal Faults in the Eastern Venezuelan Basin. Hans P. Laubscher 2 368
"Structure and Origin of the Alps," by Leopold Kober, Second Edition, Franz Deuticke, Vienna. Review by Richard A. Geyer 1 202
Student Clubs Boost Engineering Enrollment 2 554
Suzuki, Ziro and Hiromu Sima. "On Forms of Seismic Waves Generated by Explosions, I," The Science Reports of the Tohoku University, *Geophysics*, v. 5, p. 85–94, 1954. Review by Franklyn K. Levin 1 205

Tamarkin, P., see J. M. Proud, et al. 4 1123
"Theories of the Earth's Magnetism," by D. R. Inglis, Reviews of Modern Physics, v. 27, p. 212–248, April, 1955. Review by L. L. Nettleton 1 203
Theory of a Resonance Method to Measure the Acoustic Properties of Sediments. W. J. Toulis 2 299
Thyssen-Bornemisza, Stephen and W. F. Stackler. Observation of the Vertical Gradient of Gravity in the Field 3 771
Tolstoy, Ivan. "Note on the Propagation of Normal Modes in Inhomogeneous Media," Jnl. of the Acoust. Soc. of Amer., v. 27, p. 274–277, 1955. Review by Franklyn K. Levin 1 207
Toulis, W. J. Theory of a Resonance Method to Measure the Acoustic Properties of Sediments 2 299
Tri-Potential Method of Resistivity Prospecting, A. E. W. Carpenter and G. M. Habberjam 2 455
Twenty-Fifth Anniversary Meeting 2 519
Abstracts of Papers 2 531
Twenty-Sixth Annual Meeting (announcement) 3 899

Unusual Reflection Events in Offshore Seismic Work. L. G. Ellis and A. C. Winterhalter 3 755

Vajk, Raoul. Bouguer Corrections With Varying Surface Density 4 1004

Vajk, Raoul and George Walton. Geophysical History of Parentis Oil Field, France . . 3 815
Van Nostrand, Robert G., see Milton B. Dobrin 1 142
Variation of Elastic Wave Velocities in Granites With Pressure and Temperature. D. S. Hughes and Christian Maurette 2 277
Varnes, D. J., see W. L. Stokes 1 203

Wait, James R. Mutual Electromagnetic Coupling of Loops Over a Homogeneous Ground —An Additional Note 2 479
Warrick, R. E., see L. C. Pakiser 2 388
Wexler, Harry. Antarctic Research in Connection With the International Geophysical Year 3 681
White, J. E., S. N. Heaps and P. L. Lawrence. Seismic Waves From a Horizontal Force 3 715
Woods, J. P. Composition of Reflections, The 2 261
Wyllie, M. R. J., A. R. Gregory, and L. W. Gardner. Elastic Wave Velocities in Heterogeneous and Porous Media 1 41

Yungul, Sulhi. Prospecting for Chromite With Gravimeter and Magnetometer in Rugged Topography in East Turkey 2 433

Zietz, Isidore and Roland G. Henderson. Preliminary Report on Model Studies of Magnetic Anomalies of Three-Dimensional Bodies 3 794